REMARKS

Claims 1-19 are pending. Claims 16-19 have previously been withdrawn from consideration. By this Amendment, claims 1, 5-11, 14 and 15 are amended; and a substitute Abstract is provided as attached herein.

The attached Appendix includes marked-up copies of each rewritten paragraph (37 C.F.R. §1.121(b)(1)(iii)) and claim (37 C.F.R. §1.121(c)(1)(ii)).

I. Election/Restriction Requirement

The Office Action asserts restriction under 35 U.S.C. §121 for election between Group I (claims 1-15) and Group II (claims 16-19). In response, Applicants affirm the election of Group I (claims 1-15) with traverse.

II. The Specification Satisfies All Formal Requirements

The Office Action objects to the Abstract due to usage of the word "comprises" in the Abstract. In response, a substitute Abstract is provided as attached herein to obviate the objection. Withdrawal of the objection to the Abstract is respectfully requested.

III. Claims 1-15 Satisfy the Requirements under 35 U.S.C. §112, second paragraph

The Office Action rejects claims 1-15 under 35 U.S.C. §112, second paragraph as being indefinite. In response, clams 1, 5-11, 14 and 15 are amended to obviate the rejection. Withdrawal of the rejection of claims 1-15 under 35 U.S.C. §112, second paragraph, is respectfully requested.

IV. The Claims Define Patentable Subject Matter

The Office Action rejects claims 1-4 under 35 U.S.C. §102(e) over U.S. Patent No. 6,205,014 to Inomata et al.; claims 1-4, 7-11, 14 and 15 under 35 U.S.C. §102(b) over U.S. Patent No. 5,319,517 to Nomura et al.; claims 5 and 6 under 35 U.S.C. §103(a) over Inomata et al.; and claims 12 and 13 under 35 U.S.C. §103(a) over Inomata et al. in view of U.S. Patent No. 5,977,006 to Iguchi et al. These rejections are respectfully traversed.

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Inomata et al. does not teach, disclose or suggest dielectric layers comprising particles wherein "an average particle diameter (R), in a direction parallel with a said internal electrode layers, is larger than a thickness (d) of said dielectric layer," as recited in claim 1.

Instead, Inomata et al. discloses a multilayer ceramic capacitor comprising internal electrode layers and dielectric layers, wherein the dielectric layers comprise particles wherein an average particle diameter (R), in a direction parallel with said internal electrode layers, is not larger than a thickness (d) of the dielectric layer.

Referring to Fig. 2 of Inomata et al., some particle's diameters are as large as the thickness of the dielectric layers. However, most particle diameters are smaller than the thickness of the dielectric layer. Accordingly, the average particle diameter (R) of Inomata et al. is not larger than the thickness (d) of the dielectric layer.

Inomata et al. only discloses that the thickness of the dielectric layer is in the range of 5_{μ} m, and the mean grain size is 3.5 $_{\mu}$ m or larger (col. 3, lines 15-23). Inomata et al. does not teach, disclose or suggest that the average particle diameter (R) is larger than the thickness (d) of the dielectric layer. In a conventional art, including Inomata's patent, the average particle diameter (R) is not larger than the thickness (d) of the dielectric layer.

The claimed invention, is patentably distinct from such a prior art for at least the reason that the average particle diameter (R) is larger than the thickness (d) of the dielectric layer. In the claimed invention, due to the dielectric layer having the above configuration, a highly reliable multilayer ceramic capacitor having large capacitance per a unit volume and a large capacitance even in a compact size can be realized. Also, in the claimed invention, even if the thickness of the dielectric layer is less than 3_{μ} m, it is possible to obtain capacitance of a high volume ratio of $100F/m^3$ or more by obtaining the configuration wherein the largest particle diameter of particles is larger than a distance between the

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electrodes. These effects of the present invention are confirmed by the examples and comparative examples as shown in Table 1 of the present specification.

Nomura et al. also does not teach, disclose or suggest dielectric layers comprising particles "wherein an average particle diameter (R), in a direction parallel with said internal electrode layers, is larger than a thickness (d) of said dielectric layer," as recited in claim 1.

Instead, Nomura et al. discloses a multilayer ceramic capacitor comprising internal electrode layers and dielectric layers, wherein the dielectric layers comprise particles wherein an average particle diameter (R), in a direction parallel with said internal electrode layers, is not larger than a thickness (d) of the dielectric layer.

Nomura et al. only discloses that the thickness of the dielectric layers is 10 μ m or less, and the mean grain size is 1 to 5 μ m (col. 1, lines 60-65 and col. 5, lines 62-64). Nomura et al. does not teach, disclose or suggest that the average particle diameter (R) is larger than the thickness (d) of the dielectric layer. In a conventional art, including Nomura et al., the average particle diameter (R) is not larger than the thickness (d) of the dielectric layer.

The claimed invention is patentably distinct from such a prior art for at least the reason that the average particle diameter (R) is larger than the thickness (d) of the dielectric layer.

Iguchi et al. does not make up for these deficiencies. Instead, Iguchi et al. discloses a core-shell structure dielectric particles for dielectric layers in multilayer ceramic capacitors. Iguchi et al. does not disclose or suggest that the average particle diameter (R) is larger than the thickness (d) of the dielectric layer.

For at least these reasons, Inomata et al. fails to anticipate the subject matter of claims 1-4 under 35 U.S.C. §102(e); Nomura et al. fails to anticipate the subject matter of claims 1-4, 7-11, 14 and 15 under 35 U.S.C. §102(b); Inomata et al. fails to render obvious the subject

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matter of claims 5 and 6 under 35 U.S.C. §103(a); and a combination of Inomata et al. and Iguichi et al. fails to render obvious the subject matter of claims 12 and 13 under 35 U.S.C. §103(a). Withdrawal of the rejections of claims 1-4 under 35 U.S.C. §102(e) over Inomata et al.; claims 1-4, 7-11, 14 and 15 under 35 U.S.C. §102(b) over Nomura et al.; claims 5 and 6 under 35 U.S.C. §103(a) over Inomata et al.; and claims 12 and 13 under 35 U.S.C. §103(a) over Inomata et al. in view of Iguchi et al. is respectfully requested.

V. Conclusion

For at least these reasons, it respectfully submitted that this application is in condition for allowance. Reconsideration of the application is requested.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number set forth below.

Respectfully submitted,

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JAO:RJK/sld

Attachments:
Appendix
Substitute Abstract

Date: August 16, 2002

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DEPOSIT ACCOUNT USE AUTHORIZATION
Please grant any extension necessary for entry;
Charge any fee due to our Deposit Account No. 15-0461

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APPENDIX

Changes to Claims:

The following is a marked-up version of the amended claims:

1. (Amended) A multilayer ceramic capacitor comprising internal electrode layers and dielectric layers, wherein the dielectric layers comprise particles wherein an average particle diameter (R), in a direction parallel with said internal electrode layers, ~~in dielectric particles constituting said dielectric layers~~ is larger than a thickness (d) of said dielectric layer.

5. (Amended) The multilayer ceramic capacitor as set forth in claim 3, wherein Fe is segregated in at least one of said internal electrode layers.

6. (Amended) The multilayer ceramic capacitor as set forth in claim 4, wherein Fe is segregated in at least one of said internal electrode layers.

7. (Amended) The multilayer ceramic capacitor as set forth in claim 1, wherein a thickness of at least one of said dielectric layers is less than $3\mu m$.

8. (Amended) The multilayer ceramic capacitor as set forth in claim 2, wherein a thickness of at least one of said dielectric layers is less than $3\mu m$.

9. (Amended) The multilayer ceramic capacitor as set forth in claim 3, wherein a thickness of at least one of said dielectric layers is less than $3\mu m$.

10. (Amended) The multilayer ceramic capacitor as set forth in claim 1, wherein at least one of said dielectric layers comprises at least said dielectric particles and a grain boundary phase, and an area ratio of said grain boundary phase in a section of said dielectric layer is 2% or less.

11. (Amended) The multilayer ceramic capacitor as set forth in claim 2, wherein at least one of said dielectric layers comprises at least said dielectric particles and a grain

boundary phase, and an area ratio of said grain boundary phase in a section of said dielectric layer is 2% or less.

14. (Amended) The multilayer ceramic capacitor as set forth in claim 1, wherein at least one of said dielectric layers is comprised of dielectric particles, a grain boundary and grain boundary phase, a segregation phase exists in said grain boundary phase, and said segregation phase contains at least two kinds of elements selected from the group consisting of Mn, Y, Si, Ca, V and W.

15. (Amended) The multilayer ceramic capacitor as set forth in claim 2, wherein at least one of said dielectric layers is comprised of dielectric particles, a grain boundary and grain boundary phase, a segregation phase exists in said grain boundary phase, and said segregation phase contains at least two kinds of elements selected from the group consisting of Mn, Y, Si, Ca, V and W.